

AES-ACM4D

ARM Cortex M4F IoT Gateway Controller



Features

- Powered by ARM Cortex M4
- LTE 4G Wireless connectivity
- Wireless: CAT-NB/M1, Wi-SUN upon request
- GPS support (via 4G LTE or CAT-NB/M1 module)
- Multiple I/O interface connections for data collection
- Embedded Real-Time OS support
- Data logger with time stamp
- Wide operating temperature range -20°C to 70°C



Specification

System

CPU/GPU	ARM Cortex M4F
Memory	128 M-bit Flash
Storage	External Micro SD slot, Max. 32GB
Real time clock	Yes
Indicators	LED indicator x 10
Cellular	Mini PCIe Connector x 1 (UART Signal)
Wireless LAN	BT 5.0
Operating System	Embedded real-time OS: Zephyr Version: 3.0.99
Support Protocol	Modbus RTU to MQTT

Power Supply

Power Requirement	12/24 VDC
Power Consumption	12V/2.29W, 24V/3.14W, Normal used
MTBF (Hours)	--

Environmental and Mechanical

Dimension	6.3" x 4.18" x 1.07" (160 x 106 x 27 mm)
Weight	450 g
Mouting/Installation	Din Rail
Operating Temp.	-4 °F ~ 158 °F (-20 °C ~ 70 °C)
Storage Temp.	-40 °F ~ 176 °F (-40 °C ~ 85 °C)
Operating Humidity	5% ~ 95% relative humidity, non-condensing

Certification

Regulations	CE, FCC
Carrier	Planning

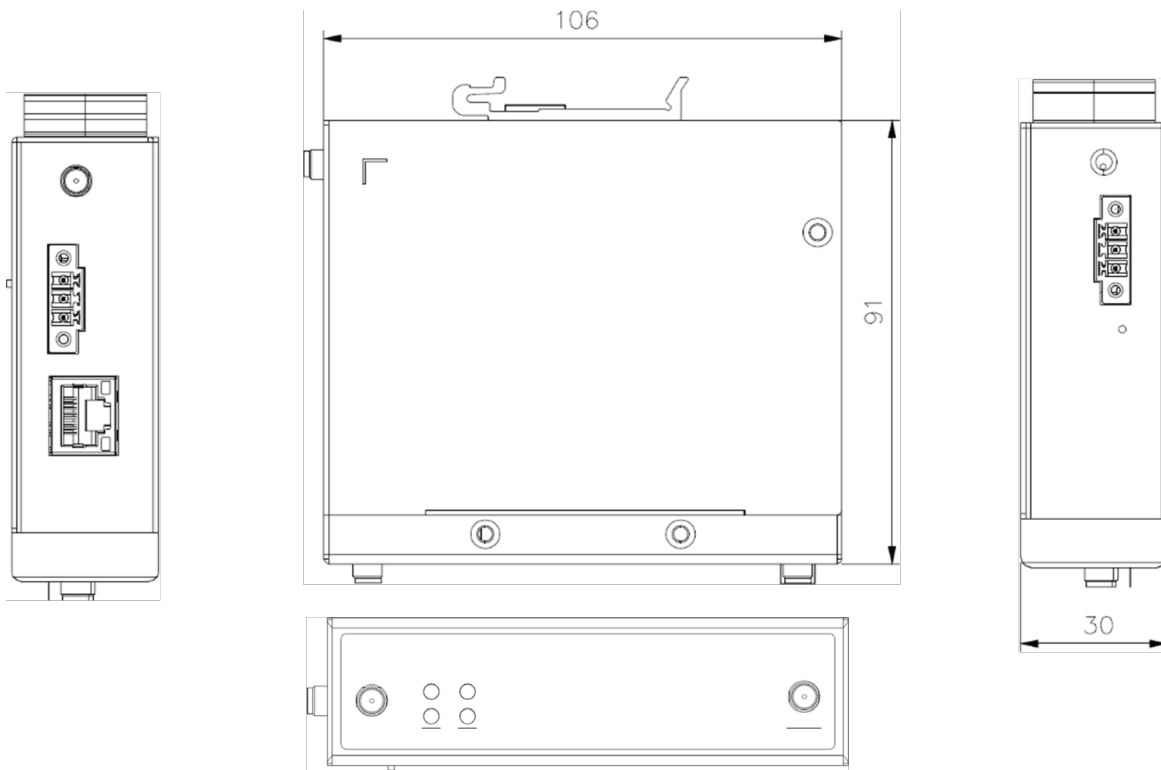
Interface

Serial Port	1 x RS232/RS485(2W,3W), Terminal Block
Ethernet	1 x 10/100Mbps LAN, RJ45
USB	--
ADC	--
DI/DO	4x Digital input, 2x Relay
AI/AO	--
CAN Bus	--
Display	--
Power Connector	1 x 3pin Terminal Block
Debug Port	1 x Micro USB for console
Expansion Slot	1 x SIM card slot 1 x Micro SD slot
Other Interface	--

Radio Frequency

LTE 4G (CAT 1) (by model)	3GPP Rel.9 compliant protocol Frequency bands: FDD LTE: B1 /B2 /B3 /B4 /B5 /B7 /B8 /B12 /B13 /B18 /B19 /B20 /B25 /B26 /B28 TDD LTE: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
	SIM card size: Micro-SIM slot Antenna type: External type Antenna connector: SMA-Male
CAT-NB / CAT-M1 (by model)	3GPP Rel.9 compliant protocol Frequency bands: FDD LTE: B1 /B2 /B3 /B4 /B5 /B7 /B8 /B12 /B13 /B18 /B19 /B20 /B25 /B26 /B28 TDD LTE: B38/B39/B40/B41 WCDMA: B1/B2/B4/B5/B6/B8/B19 GSM: B2/B3/B5/B8
	SIM card size: Micro-SIM slot Antenna type: External type Antenna Connector: SMA-Male
GPS (by model)	GPS/GLONASS/BeiDou (Compass)/Galileo

Dimensions



Packing List

AES-ACM4D1	1 x AES-ACM4D, 1 xDIN Mounting Kits
AES-ACM4D2	1 x AES-ACM4D, 1 xLTE 4G Module, 1 xAntenna, 1 xDIN Mounting Kits
AES-ACM4D3	1 x AES-ACM4D, 1 xCAT-NB/M1 Module, 1 xAntenna, 1 xDIN Mounting Kits

Ordering Information

AES-ACM4D1	Protocol Gateway, ARM Cortex M4, 12/24VDC
AES-ACM4D2	Protocol Gateway, ARM Cortex M4, LTE 4G, 12/24VDC
AES-ACM4D3	Protocol Gateway, ARM Cortex M4, NB/M1, 12/24VDC

Optional Accessories

9741EG25G0	PCIe mimi card. 4G LTE. EG25-G
9697PT0003-D	PCIe mimi card. CAT-NB/CAT-M1. EXS62
170X000099	Antenna, LTE / CAT-NB and M1, Full Band
978966660G	Antenna. GPS
1255X00072	Power Adapter. AC/DC. 100-240VAC. 12VDC/3A.36W